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ABSTRACT

This paper presents an overview of the needs of and training programs for vocational education teachers in the Philippines. Following a discussion of the need and rationale for and objectives of teacher training programs, the paper is organized in three sections. The first section describes the preservice technical teacher education system, examining the structure of the formal educational system, the teacher education program, and the crediting system. Inservice education programs are examined in the second section of the paper. Information is provided on the method of selecting and recruiting teaching staff, upgrading programs, and the Technical Vocational Education Project. The current status and targets for the future are discussed. In the last section, some problems perceived in technical teacher education are outlined. (KC)

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STATE OF THE ART OF TECHNICAL TEACHER TRAINING

PHILIPPINES COUNTRY PAPER

Prepared for the Regional Workshop on
Technical Teacher Training at
Chiba, Japan
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INTRODUCTION

Manpower studies have shown that there are enough engineers in the Philippines, but there are significant gaps in the supply of middle level manpower to enable the country to adopt modern technology. This shortage of manpower at the technician level is believed to be the bottleneck in the successful implementation of Philippine economic and social development projects. In view of this, the educational system prioritized the training of manpower in the middle level skills to meet the requirements for national development.

One of seven major obstacles to the attainment of the above objectives is the shortage of competent technical vocational teachers.

In order to neutralize these obstacles, a Technical and Vocational Education Project (TVEP) was initiated in 1982 with the assistance of a $27 million loan from the Asian Development Bank.

One objective of the Project is to establish staff development programs for teaching and non-teaching personnel of the 21 project institutions.

RATIONALE FOR TECHNICAL TEACHER EDUCATION

The pre-service technical teacher education is designed to produce teachers who are competent pedagogically and skillful in their chosen fields of specialization.

Because it is impossible to prepare the teachers for all the challenges they will face upon employment, the in-service programs are undertaken to improve occupational skills and instructional effectiveness as well as to increase self-awareness and development. These programs are usually coordinated by the Department of Education through various sub-national and sub-regional units using existing in-service centers as venues.

In the Philippines, in-service education programs are usually conducted for three main objectives:

(1) to upgrade the occupational competence of teachers;

(2) to increase instructional effectiveness; and

(3) to enhance their qualifications.

Both pre-service and in-service education in conceived to be a continuous process of development.

I.

PRE-SERVICE TECHNICAL TEACHER EDUCATION SYSTEM

Structure of the Formal Educational System

The present educational systems has six (6) years of compulsory elementary education, followed by four (4) years of secondary school which qualifies one for entry into the tertiary level after qualifying in the National College Entrance Examination (NCEE). The system may be presented schematically as in Figure 1.

At the tertiary level, there are three (3) specialization programs for technical teachers, and these are the Bachelor of Science in Agricultural Education (B.S. Ag. Ed.), the Bachelor of Science in Industrial Education (BSIE) and the Bachelor of Science in Fisheries Education (BSFE). These teacher education programs prepare graduates to teach in vocational colleges.

Of the total 926 technical institutions, 608 are private schools. Of the remaining number of schools, 25 schools are chartered state colleges and universities and the rest (or 293 schools) are regular technician institutions.

The Teacher Education Program

The technical teacher training programs can be described as mostly general education for the first two years with some specialized technical courses, and mostly specialization and pedagogical courses at the last two years capped by practice teaching during the last semester.

The structure of the curriculum may be graphically presented as follows:

THE PHILIPPINE EDUCATIONAL SYSTEM

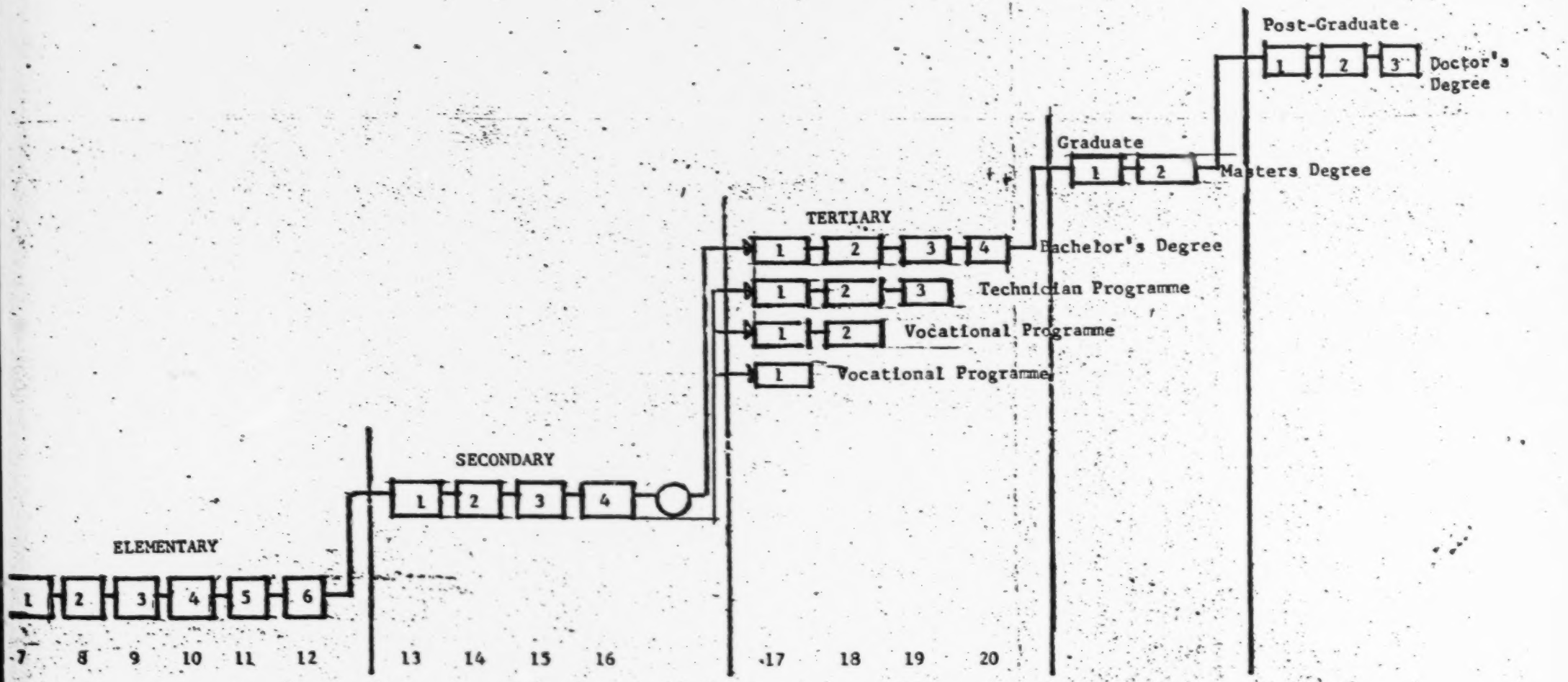

Figure 1

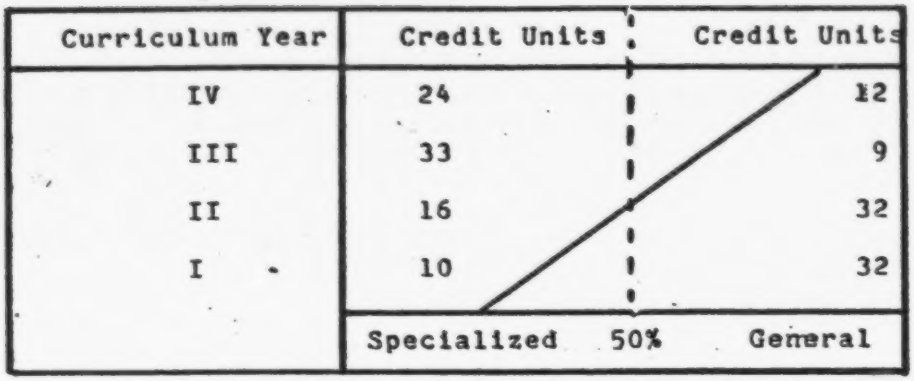

Fig. 2. Structure of pre-service specialized and general teacher education credit courses.

Taking the BSIE as an example, the program has a total of 168 units distributed as follows:

General Education	:	52%
Trade Courses	:	21%
Education Courses	:	27%

This may be seen graphically as in Figure 2 above.

Requirements for admission are a secondary school diploma; qualification in the NCEE with at least fifty five percent (55%) rating; and passing score in the entrance battery tests in the school.

The student evaluation system follows the general system in the tertiary level wherein formal written and practical examinations are administered at the end of three (3) grading periods per semester with two semesters per year. There are the usual teacher-made quizzes and practical tests given during the term.

II

IN-SERVICE EDUCATION PROGRAMS

Method of Selection and Recruitment of Teaching Staff

Vacancies are routinely announced by each school before the beginning of each school year. All applicants must meet minimum requirement of education, experience as well as civil service examination in the case of public schools.

Educational credentials are the degree appropriate for the type of schools, that is, BS Agricultural Education for an agricultural school, or BS in Industrial Education for a trade school, or BS Fishery Education for a fishery school. In certain instances, other bachelors degrees, such as engineering degrees are acceptable, provided the applicant earned eighteen (18) units credit in required education courses to be deemed a holder of a degree equivalent to an Education degree.

Applicants to public schools must also have qualified in the Professional Board for Teachers.

The requirement for at least 2 years industrial experience is frequently waived, which is unfortunate, so that the method of teaching and level of proficiency in the students readily reflects this lack in the teachers. Moreover, the new teachers, when surveyed placed the ratio of theoretical to practical component of their training at an optimistic 60 to 40 or a more realistic 70 to 30, usually due to "lack of equipment and other physical facilities". The absence of a permanent and systematic link of the schools with industry is believed to be the main reason for the lack of hands-on or industrial experience in the program activities, and the source of courses would be obscure. Thus contributing to the low employability score of the school graduates.

Upgrading Programs

A training needs assessment of 148 teaching staff directly involved in the implementation of the Diploma in Technician Education curriculum was conducted in school year 1985-86. Of the respondents, majority or sixty one (61%) percent were Instructors, twenty eight (28%) percent were in the age bracket, 31 to 35 years old, fifty nine (59%) percent were female, eighty (80%) percent of whom were married and twenty seven (27%) had served a total of 15 years of which 1 to 5 years were in the position accomplished during the survey. Majority or thirty four (34%) percent had Bachelor's degrees but as much as twenty six (26%) percent had earned the Master Technician Education which was specially designed for instructors or project institutions. There are two (2) programs available, the Master of Technician Education program and the short term upgrading programs in school or in industry available locally or internationally. (See Figure 3).

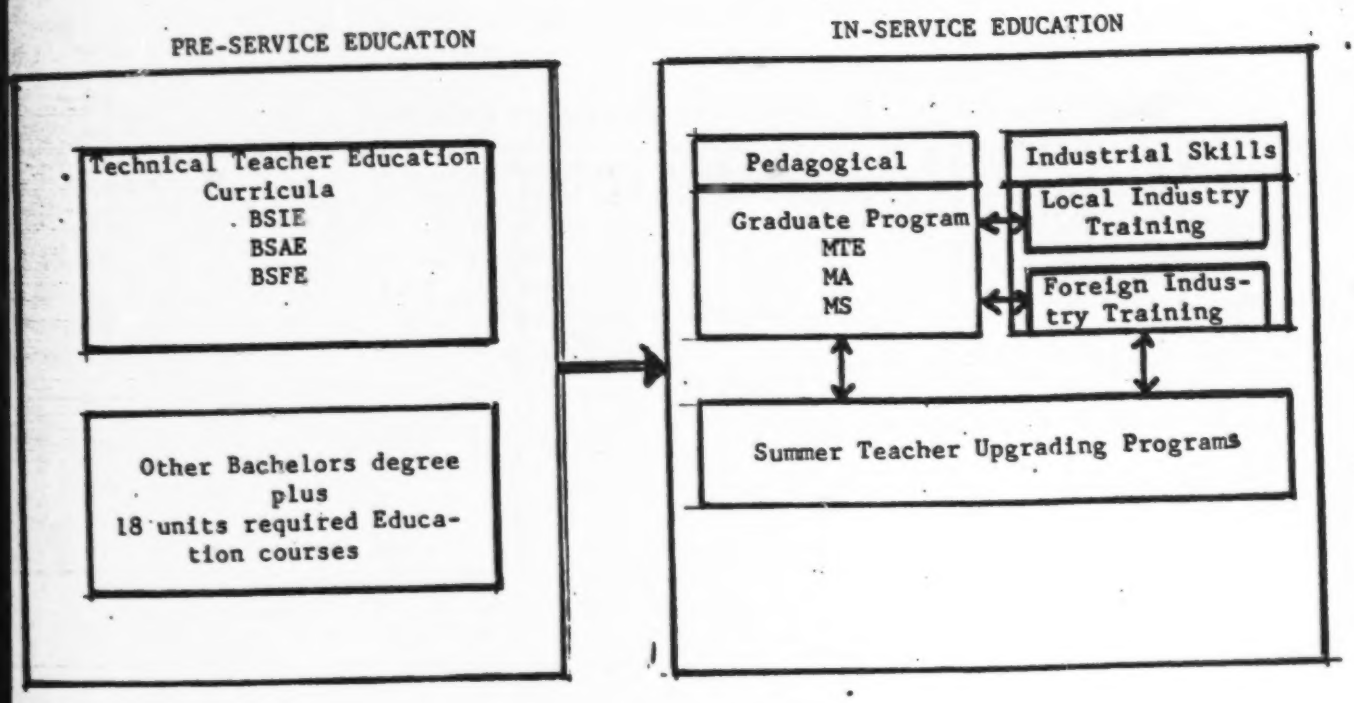

Fig. 3. Pre-Service and In-Service Education Scheme

The TVEP Technician Teacher Training Program

In the Philippines, there is established a network of project institutions where staff development is undertaken. At the national center, programs for trainors are conducted. These trainors serve at regional centers (of which there are three) where teacher upgrading program is continuously conducted. These centers also serve as research and development centers and as model schools par excellence.

Of the 22 project institutions which are included in the Technical Vocational Education Project (TVEP) one is developed as the National Center and three as regional centers for technical education and staff development (N/RCTESDs). The national center which is located in Metro Manila provides the services needed by all the other 21 project institutions - one regional center is serving the teacher training needs of the technician education institutes (TEIs) in Luzon, one in Visayas and one in Mindanao. The training of teacher trainors is the main function of the national center while the training of technician teachers is that of the regional centers insofar as their respective roles in staff development is concerned. (See Fig. 4)

The national and regional centers for staff development offer short-term in-service education programs as well as workshops and seminars on educational technology, teaching methods, educational administration, vocational guidance and instructional resource management and development.

The national center offer the long term (one year and one summer) degree granting graduate program for the Master in Technician Education. Three batches of 150 graduates each have completed the program as of SY 1987. The fourth and last batch of 150 graduate students are now in school. This program must be upgraded depending on technician curriculum standards related to the level of skills proficiency needed in industry. Evaluation information will also be available after the installation of shop and laboratory equipment.

International fellowship programs were provided to selected young, committed and potential leaders in technician education. The main objective is to build the technician teacher training capability of the Centers to approximate international

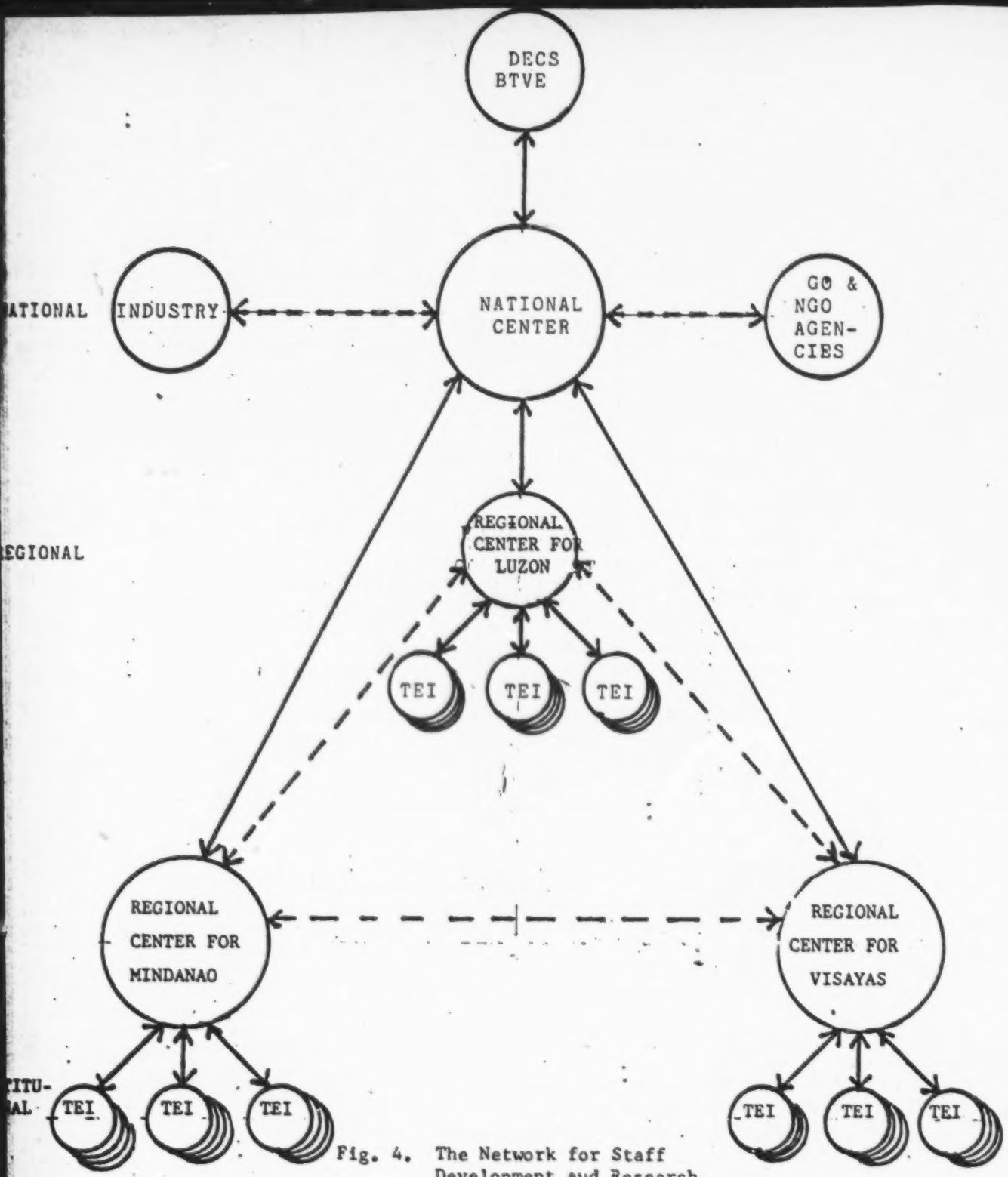

Fig. 4. The Network for Staff Development and Research in Technician Education.

Legends : ____ line of responsibility
---- line of coordination

Abbreviations:
DECS - Department of Education, Culture and Sports
BTVE - Bureau of Technical & Vocational Education
GO - Gov't. Org.
NG - Non-Gov't. Org.
TEI - Technician Educ. Institute

standard level. Two groups of nine (9) scholars each were sent overseas for masteral courses designed to prepare them as technician teacher trainors at the national center and as technician teachers at the regional centers. Other groups were sent to Australia and Singapore to undergo specialized training in related areas such as staff development, curriculum development and implementation, and educational research and development.

The services of international consultants and local counterparts are made available in the in-country training programs.

Short-term upgrading program for technician teachers are being carried out in the three (3) regional centers. The emphasis of these programs is to raise the skills competence of the teachers who are handling the post-secondary technician curriculum. The national center is also implementing the summer teacher upgrading program for the tool courses such as Technical English, Mathematics, Physics, Chemistry, Technical Drawing and Work Ethics. A continuous assessment of training needs is being pursued in view of the fast pace of technological growth. On the basis of the findings the corresponding training program is designed and offered. This program might be upgraded upon the need of technician curriculum standards in relation to level of skills need of industry and after the final installation of shop and laboratory equipment.

Status and Targets

1. Under the Technical Vocational Education Project, the number of technology and tool subject teachers needed to carry out the program is about 750 for technology areas and 480 for tool courses. This is based on the recommended faculty-student ratio of 1:16 and 1:25 in technology and tool courses, respectively. This number of trained technician teachers are needed when the program is at full implementation after the equipment are installed.

   To date, 588 teachers have been trained in summer upgrading programs and 438 teachers have earned the Masters in Technician Education.

Future training programs would be for the purpose of further upgrading of teachers based on the higher level of technology envisioned. Training would closely follow the competency-based instruction in order to maximize technology skills capability of teachers.

2. Under the staff development component of the Fisheries Education Loan with the World Bank, the seven (7) Fishery Institutes developed as Regional Institutes for Fisheries Technology have sent 948 teachers for upgrading locally and internationally. eighty four (84) of which finished the degree programs and 864 teachers finished the non-degree programs.

3. Under the DECS Integrated Scholarship Program specific number of places are available for teachers benefit, but their programs are not for technical teachers alone but are open to all teachers in the service. These programs are offered in accredited state colleges or universities such as UP, PNC, ATENEO, TUP, MIST and WMSU or will be offered in the proposed National Learning Center. From 1978 to the present, a total of 163 teachers both technical and non technical were trained at MIST. Every year more than 200 elementary and secondary teachers are trained under the DECS Integrated Scholarship Program. Complimenting this National Center are 13 Regional Educational Learning Centers located in each of the administrative regions in the Philippines.

III.

SOME PROBLEMS PERCEIVED IN TECHNICAL TEACHER EDUCATION

The preceding situationer gives rise to some perceived hindrances in the raising of the quality of technical teacher education. These are:

1. Institutionalized linkage with industry is almost non-existent, hence an overwhelming majority of technical teachers cannot meet the minimum requirement of two (2) years of industrial experience. This requirement is felt to be absolutely necessary so that the teacher is occupationally competent and can transmit the

skills required by his chosen trade to his students.

2. The quality of intake in teacher colleges is not up to par. Only the best high school graduates should be allowed to enter the course. As it is, those who choose the education course are the dregs of the student population. Furthermore, within the teachers colleges only the under achievers elect to specialize in vocational education.

3. Once a technical teacher is hired, the working environment does not elicit deep commitment to excellence nor encourage professional growth. Moreover, the low hiring salary rate does not justify the deferred income during the additional training period to attain occupational competence. There is actually no systematic reward system or career plan to encourage the good teachers to stay in teaching, nor to entice top caliber technicians to teach. Finally, there is no testing system to facilitate upward movement within the profession. On the other hand, the turn over rate is so high that when a teacher has been trained pedagogically and has become occupationally competent, he is usually pirated by industry which can offer more attractive benefits.

4. There is no systematic or unified in-service education program for technical teachers. Since this sub-sector of the teaching service is highly specialized, the consequent training needs have to be addressed seriously.

A plan to neutralize the above listed negative forces, can ensure an improved working environment, will enrich the job of teaching at the technical level and thereby increase the satisfaction of the man on the job.